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SECTION VI. THE ORE REGION OF THE THURINGIAN FOREST, THE RICHELSDORF MOUNTAINS AND THEIR VICINITY

This report treats the Thuringian Forest itself, the Franconian Forest, and the East Thuringian shale mountains, a spur of the Bohemian mass which extends to the northwest. In addition, the Richelsdorf Mountains, the Scoden-Allendorf graywacke area and the northern part of the Rhoen Mountains and the areas between them are included.

This area, commonly referred to as the Thuringian-Hessian region, contains the following deposit areas:

1. Thuringian Forest, Franconian Forest, East Thuringian shale mountains, and the northern and southern foothills
2. Richelsdorf Mountains
3. The Scoden-Allendorf graywacke mountains
4. The northern part of the Rhoen Mountains

In the north, the Thuringian-Hessian ore region borders the ore region of the Harz Mountains. These two ore regions have in common the copper shale which extends throughout Central Germany, so that the two regions gradually merge. The rivers Wipper and Unstrut have been used as the boundaries of the region.

In the south, the Thuringian-Hessian ore region merges with the ore region of the northern and western edges of the Bohemian mass, approximately along the line Kulmbach-Hof-Plauen.

The southern border, between this region and the ore region of the Upper Rhenish Mountains, runs approximately along the line Gersfeld (Upper Fulda valley)-Bischofsheim-Koenigshofen-Lichtenfels (Main).

The western border is formed by the Fulda valley.

General: The core of this region is formed by the block of the Thuringian Forest, limited by a Saxonian disturbance, an oblong area of pre-Permian and Lower Permian rocks, which merges toward the southeast with the Franconian Forest and the eastern Thuringian shale mountains

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without any morphological or geological border. It forms a spur of the northwestern edge of Bohemian Mass. In this paleozoic complex of the Thuringian Forest, the East Thuringian shale mountains, and the Franconian Forest, and in the ridge of Permian limestone which accompanies it, there are a large number of magmatic and sedimentary ore and mineral deposits.

In addition to many small or fairly unimportant deposits, there are also a number of larger ones which are at present still being mined. These latter ones include, especially, the sedimentary iron silicate ore deposits of the East Thuringian Forest (Schmiedefeld near Saalfeld), the veins of antimony ore near Schleiz, the metasomatic siderite masses and deposits at Schmalkalden and Ramsdorf, the fluorite veins of Ilmenau and Steinbach, and the barite veins of Koenits and Herges-Vogtei. The manganese ore mine of Elgersburg has only a small yield. The polymetallic manganese ore deposits of Luisenthal, which are to be mined after the problem of processing them has been solved, are also of economic importance. Most of the magmatogenous Varistian deposits, which also contain small gold quartz veins, and most of the Saxonian iron, manganese, copper, and cobalt ore veins either have been exhausted, because they have been mined ever since the Middle Ages, or are not worth mining according to present-day standards. The portions of the sedimentary Upper Permian copper shale at Ilmenau and Eisenach also were mined once. Recent test drillings, however, have shown the presence of only a little copper in addition to lead and zinc. Thus, resumption of operations in these old mines is hardly likely.

The copper shale region of the Richelsdorf Mountains, a hilly region made up of Lower Permian and Upper Permian strata, west of the Thuringian Forest, contains the greatest copper reserves in Germany, except for the lower Silesian district of Haasel and Groeditz and the Mansfeld region. In addition, the Richelsdorf region also contains barite veins capable of being mined, and cobalt veins which are not worth mining.

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North of the Richelsdorf Mountains a small area of pre-Permian rocks projects from the Triassic hills. This area, in the region of Sooden and Allendorf on the lower Werra River, contains some barite veins which are being mined.

The mountains of the Northern Rhoen, characterized by their basaltic tops and knobs, contain only barite veins.

This entire region contains a great variety of types of deposits. For a discussion of the regular relations of these deposits to the magma and the tectonics, these deposits have to be arranged as follows in order of age and origin:

1. Pre-Varistian deposits (sedimentary iron and FeS_2 deposits)
2. Early Varistian deposits (magmatic iron deposits)
3. Deposits of the Varistian main mineralization (magmatic deposits of Fe, Mo, S, As, Pb, Zn, Ag, Sb)
4. Late Varistian or Pre-Saxonian deposits (sedimentary Cu, Zn, Pb ores of copper shale)
5. Saxonian telemagmatic deposits (quarts and carbonate veins and metasomatic deposits of Fe, Mn, CaF_2, and $BaSO_4$).

The coal, oil, and potash deposits of the Thuringian-Hessian ore region are not discussed in this report.

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Oberhof

Suhl

Upper Saale River

Luisenthal

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